ASSIGNMENT 7

Textbook Assignment: "GMLS: Secondary and Auxiliary Functions," chapter 8, and "SMS Guided Missiles, Aerodynamics, and Flight principles," chapter 9, pages 8-1 through 9-23.

7-1. What does "dud jettisoning" refer to as a Gunner's Mate?

1. A missile that has a delay in firing or leaving the rail
2. The act of clearing an unwanted missile from a launcher guide rail by ejecting it overboard
3. The act of cleaning the launcher after firing
4. The act of disposing of retrograde

7-2. The Mk 13 Mod 4 GMLS jettison device is essentially what type of piston?

1. Low-pressure, hydropneumatic ram-type piston
2. Medium-pressure, hydropneumatic ram-type piston
3. High-pressure, hydropneumatic ram-type piston
4. High-pressure, hydraulic piston

7-3. On the Mk 13 Mod 4, jettison operations may be performed in the remote, local, or exercise mode as selected by the EP2 panel operator.

1. True
2. False

7-4. What gas does the MK 13 Mod 4 GMLS jettison device use?

1. Argon
2. Helium
3. Nitrogen
4. Oxygen

7-5. What device is used to increase the nitrogen pressure on the Mk 13 Mod 4 GMLS jettison device tank?

1. Automatic booster pump
2. HP air
3. LP air
4. Manual booster pump

7-6. The nitrogen tank is pressurized to about what psi on the Mk 13 Mod 4 GMLS jettison device?

1. 1,000
2. 1,500
3. 2,000
4. 2,400

7-7. The Mk 26 GMLS has what total number of jettison devices per launcher?

1. One
2. Two
3. Three
4. Four

7-8. What device or substance provides the jettison ejecting force on the Mk 26 GMLS jettison device?

1. Explosive gas generator
2. Nitrogen PSI
3. Ships HP air
4. Ships LP air

7-9. On the Mk 26 GMLS, how many times can the gas generator be fired before it must be replaced?

1. One
2. Two
3. Three
4. Four

7-10. On the Mk 26 GMLS, what will happen if the gas generator accidentally fires while the jettison device is retracted?

1. The piston will be ejected over the side of the ship
2. A pressure safety relief mechanism will safely vent the expanding gases to the atmosphere
3. The gas generator will explode throwing metal pieces about the launcher
4. A pressure safety relief mechanism will vent gases into the plenum

7-11. Which of the following devices or components are NOT part of the strikedown gear on the Mk 13 Mod 4 GMLS?

1. Air supply components
2. Chain-drive fixture
3. Hand-control unit
4. J-davit

7-12. The Mk 13 Mod 4 strikedown hand-control unit can control train and elevation launcher movements, the elevation positioner (latch), and what other action?

1. Elevation power drive brake only
2. Train power drive brake only
3. Elevation and train power drive brakes
4. A loaded transfer dolly

7-13. The strikedown chain-drive fixture on the Mk 13 Mod 4 serves what purpose?

1. Pulls the missile up to the guide arm only
2. Lowers the missile to the dolly only
3. Lowers the missile to the magazine
4. Pulls the missile up to the guide arm and lowers the missile to the dolly

7-14. The strikedown manual air-control valve on the Mk 13 Mod 4 has three positions. Which of the following is NOT a position on the valve?

1. Extend
2. Neutral
3. Overdrive
4. Retract

7-15. What device or individual drives the Mk 13 Mod 4 launcher to the predetermined strike-down position?

1. EP2 panel operator
2. Fixed-position synchros
3. 010
4. Safety officer

7-16. The LOAD/UNLOAD position on the Mk 13 Mod 4 launcher is at what elevation?

1. 15 degrees
2. 35 degrees
3. 45 degrees
4. 90 degrees

7-17. What is the purpose of the strikedown/intertransfer mechanism on the Mk 26 GMLS?

1. Moves missiles from RSR to RSP only
2. Moves missiles between the deck and magazine only
3. Moves missiles between the deck and magazine and from RSR to RSR
4. Moves the missile from the dolly

7-18. On the Mk 26 GMLS, what maximum number of degrees can the index drum be rotated to either side of centerline when the carrier assembly is in the magazine?

1. 45 degrees
2. 50 degrees
3. 60 degrees
4. 80 degrees

7-19. When the carrier assembly is raised to the deck level, what maximum number of degrees can the index drum be rotated to either side of centerline?

1. 45 degrees
2. 50 degrees
3. 60 degrees
4. 80 degrees

7-20. The strikedown/intertransfer mechanism on the Mk 26 GMLS receives its hydraulic fluid supply from what source?

1. Train power-drive
2. Elevation power-drive
3. A-RSR/hoist power-drive only
4. A- or B-RSR/hoist power-drive

7-21. On the Mk 26 GMLS, what special piece of equipment is used to transfer an ASW missile between its shipping container and the strike-down beam?

1. AAW container receiver plate
2. ASW container receiver plate
3. Aft-shoe receptacle
4. Forward-shoe receptacle

7-22. A typical GMLS carbon dioxide (CO_2) system is permanently installed (fixed) in the magazine area primarily to fight what type of fire?

1. Electrical
2. Fuel
3. Missile
4. Retrograde

7-23. A typical GMLS carbon dioxide (CO_2) system can be activated in what manner?

1. Automatically only
2. Manually from local only
3. Manually from remote only
4. Automatically or' manually from local and remote

7-24. In a GMLS CO_2 system, the HSD fusible link is designed to melt at what temperature?

1. 100°F (±3°)
2. 120°F (±3°)
3. 150°F (±3°)
4. 160°F (±3°)

7-25. On a typical water injection system, once the system is activated, it can be secured in what manner?

1. Automatically
2. By DC central
3. Manually
4. By bridge controls

7-26. What is the purpose of a typical water injection system?

1. It places a charged supply of freshwater under each missile
2. It cools down the blast doors after firing
3. It keeps the missile from over heating in the magazine
4. It is used for freshwater washdown

7-27. Why is freshwater used in a typical water injection system?

1. It does not promote corrosion as quickly as salt water
2. It conducts electricity better than salt water
3. It is readily available
4. Because of system design

7-28. The compression tank of a water injection system is usually in what location?

1. In the magazine
2. On the main deck
3. In the engine room
4. On a deck below the magazine

7-29. The compression tank of a water injection system is charged to (a) what psi and from (b) what source?

1. (a) 100 psi (b) ships LP air
2. (a) 200 psi (b) ships HP air
3. (a) 300 psi (b) nitrogen flask
4. (a) 400 psi (b) ships firemain

7-30. At what point, if ever, does salt water enter the water injection system when activated?

1. As firemain pressure equals or exceeds freshwater pressure
2. On activation
3. When manually turned on
4. Never

7-31. The Mk 13 GMLS water injection system has what total number of detector nozzles?

1. 16
2. 24
3. 48
4. 96

7-32. What is the main feature of a dry-type sprinkler system?

1. Uses dry-type chemicals
2. The piping from the outlet side of the main sprinkler control valve up to the sprinkler head contains no water in a normal or ready state
3. Used in small-arms magazines only
4. Used in missile magazines only

7-33. What type of sprinkler system is unique to the Mk 41 VLS?

1. CO_2
2. Deluge
3. Dry-type
4. Wet-type

7-34. What is the definition of "Restrained firing"?

1. A delay in the missile leaving the rail
2. A premature missile motor burnout
3. Missile motor ignition and subsequent rupturing of the canister after closure without missile motion
4. A missile motor failing to ignite

7-35. What is the definition of "Overtemperature" on the Mk 41 VLS?

1. Internal canister temperature of 190°F or above WITHOUT a missile present
2. Internal canister temperature of 180°F or below WITH a missile present
3. Internal canister temperature of 190°F or above WITH a missile present
4. External canister temperature of 190°F or below WITH a missile present

7-36. What is the deluge flow rate on the Mk 41 VLS?

1. 20 gpm
2. 30 gpm
3. 40 gpm
4. 100 gpm

7-37. What is the major advantage of missiles being made up of several sections?

1. Strength only
2. Simplicity only
3. Strength, simplicity, and easier replacement and repair of components
4. Easier replacement and repair of components only

7-38. Missiles exist for what primary purpose?

1. To carry the warhead to the target
2. To add ballast to a warship
3. Training
4. As a deterrent to enemy aircraft

7-39. Why is the forward section of a missile covered by a random?

1. Aids in flight
2. Aids in stability
3. Protects a small radar antenna inside the missile
4. Protects the warhead during stowage

7-40. Why are airfoils (wings, fins, or control surfaces) attached to the body of a missile?

1. For in-flight stability only
2. Provides lift only
3. Controls the missile's flight path only
4. For in-flight stability, provides lift and controls the missile's flight path

7-41. What are the principal forces acting on a missile in level flight?

1. Drag, lift, speed, weight
2. Drag, gravity, thrust, weight
3. Drag, lift, thrust, weight
4. Lift, resistance, thrust, weight

7-42. What rotary movements can a missile make in flight?

1. Lateral, roll, and yaw
2. Pitch, roll, and vertical
3. Roll, yaw, and vertical
4. Pitch, roll, and yaw

7-43. What linear movements can a missile make in flight?

1. Lateral, vertical, and yaw
2. Lateral, vertical, and along the direction of trust
3. Lateral, vertical, and pitch
4. Pitch, roll, and yaw

7-44. What is the definition of "precession" when referring to gyros in guided missiles?

1. Movement in a straight line
2. Movement at a right angle to the direction of the applied force
3. No movement, stable flight
4. Opposing force applied to movement in any direction

7-45. Which of the following is NOT a function of a missile's guidance system?

1. Computing
2. Directing
3. Steering
4. Tracking

7-46. Which of the following is a function of a missile's control system?

1. Computing
2. Directing
3. Steering
4. Tracking

7-47. A missile in-flight guidance is divided into what three phases?

1. Boost, computing, and tracking
2. Boost, midcourse, and computing
3. Boost, midcourse, and terminal
4. Boost, steering, and terminal

7-48. Which of the following is NOT a homing guidance system used by a SMS missile?

1. Active
2. Passive
3. Radio command
4. Semiactive

7-49. What device switches guidance subsystems during missile flight?

1. Control matrix
2. Electronic timing device
3. Propulsion unit
4. Receiver/transmitter

7-50. Which of the following missile guidance systems are best suited for large, long range, land targets?

1. Radar command and homing
2. Active and semiactive
3. Passive and composite
4. Celestial and terrestrial

7-51. What type of propulsion is employed by guided missiles?

1. Gravity
2. Gun
3. Impulse
4. Reaction

7-52. What is the major disadvantage of a missile with a turbojet engine?

1. Fuel
2. Payload
3. Speed
4. Weight

7-53. Which of the following is NOT a major element of a solid fuel rocket motor propulsion unit?

1. Combustion chamber
2. Exhaust nozzle
3. Guidance system
4. Igniter

7-54. What term is used to describe the igniter on a solid fuel rocket motor?

1. Cap
2. Firing pin
3. Reduced charge
4. Squib

7-55. What are the optimum temperature ranges for most solid propellants in stowage for solid rocket motors?

1. 10°F - -50°F
2. 50°F - -70°F
3. 70°F - -100°F
4. 100°F - -160°F

7-56. What factor determines a missile's maximum turning rate?

1. Acceleration
2. G-force
3. Thrust
4. Weight

7-57. In relation to the speed of sound, a missile traveling at Mach 2 would be traveling at what speed?

1. Speed of sound
2. One-half the speed of sound
3. Twice the speed of sound
4. Two tenths the speed of sound

7-58. Which of the following warheads would be most effective against underwater targets?

1. Blast-effect
2. Fragmentation
3. Illumination
4. Inert

7-59. In guided missiles, a command fuze is often used for what primary reason?

1. Time delay
2. Self-destruct
3. Jamming
4. Arming

7-60. Which of the following descriptions best describes a Harpoon missile?

1. Subsonic, low altitude cruise missile for use against surface targets only
2. Subsonic, low altitude cruise missile for use against air targets only
3. Supersonic, high altitude cruise missile for use against air and surface targets
4. Supersonic, low altitude cruise missile for use against surface targets only